UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,360	05/15/2001	Ludwig Guenther	DE920000038US1	8762

26502   7590   06/17/2005

IBM CORPORATION
IPLAW IQ0A/40-3
1701 NORTH STREET
ENDICOTT, NY 13760

EXAMINER
LIN, KENNY S

ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/855,360	GUENTHER ET AL.
	Examiner	Art Unit
	Kenny Lin	2154

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _31 May 2005_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-20_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *   c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   Applicant's request for reconsideration of the finality of the rejection of the last Office

action, mailed on 4/1/2005, is persuasive and, therefore, the finality of that action is withdrawn.

2.   Applicant's amendment filed on 11/29/2004 necessitated the new ground(s) of rejection

presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

3.   Claims 1-20 are presented for examination.

Information Disclosure Statement

4.   The information disclosure statement filed 2/10/2005 fails to comply with the provisions

of 37 CFR 1.97, 1.98 and MPEP § 609 because at least one of the foreign non-English patent

documents is not submitted with an English translation copy. It has been placed in the

application file, but the information referred to therein has not been considered as to the merits.

Applicant is advised that the date of any re-submission of any item of information contained in

this information disclosure statement or the submission of any missing element(s) will be the

date of submission for purposes of determining compliance with the requirements based on the

time of filing the statement, including all certification requirements for statements under 37 CFR

1.97(e). See MPEP § 609 ¶ C(1).

5.   Claim 18 is objected to because of the following informalities: There are two periods "..."

at the end of the claim sentence. Appropriate correction is required.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   Claims 1-2, 5-8, 10-12, 15-18 and 20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Pepe et al (hereinafter Pepe), US 5,673,322, in view of Gauvin et al

(hereinafter Gauvin), US 5,790,800, and Banavar et al (hereinafter Banavar), US 6,662,206.

8.   Pepe was cited by the applicant in the IDS. Gauvin was cited in the previous office

action.

9.   As per claims 1 and 11, Pepe taught the invention substantially as claimed including a

data communication method that compensates for disadvantageous characteristics of a first

protocol that is used to communicate data between a client application and a server application,

wherein the client application and the server application employ a second protocol that is

mapped onto the first protocol (col.5, lines 48-61), said method comprising the acts of:

    a. Intercepting, by a local proxy acting on behalf of a server application, a second-protocol data communication request from a client application (col.5, lines 48-57, col.7, lines 17-23, 32-34, 66-67, col.8, lines 1-5, 16-25);

    b. Mapping, by the local proxy, the second-protocol data communication request onto the first protocol (col.5, lines 48-59, col.7, lines 17-31, 51-60, 66-67, col.8, lines 1-5, 16-25);

    c. Sending the communication request to a remote proxy using the first protocol (col.5, lines 48-59, col.7, lines 17-34, 66-67, col.8, lines 1-8, 16-25);

    d. Compensating a disadvantageous characteristic of the first protocol (col.9, lines 2-67, col.10, lines 1-6), said compensating comprising ascertaining that a condition exists and respond appropriately to the condition in response to said ascertaining, said condition being a connection condition or a transmission capacity condition (col.9, lines 2-67, col.10, lines 1-6; appropriate response to failures);

    e. Mapping, by the remote proxy, the communication request back onto the second protocol to recreate substantially the second-protocol data communication request (col.5, lines 48-61, col.7, lines 34-38, col.8, lines 6-15, 26-33); and

    f. Delivering the second-protocol data communication request to the server application (col.5, lines 48-61, col.7, lines 34-38, col.8, lines 6-15, 26-33).

10.   Pepe further taught that proxies can be of hardware, software or implemented on a firewall (col.7, lines 1-23). Pepe did not specifically teach that the local proxy is a client interceptor, the remote proxy is the server interceptor and to eliminate the condition in response

to said ascertaining. Gauvin taught to use interceptors in intercepting the requests (col.2, lines

38-42, col.9, lines 5-7, col.12, lines 57-63). It would have been obvious to one of ordinary skill

in the art at the time the invention was made to combine the teaching of Pepe and Gauvin

because Gauvin's teaching of using interceptors help to implement the proxies of Pepe's method

to intercept requests and establish communications (Gauvin, col.12, lines 57-63). Banavar taught

to detect that a condition exists and eliminate the condition in response to said detection (col.8,

lines 3-8; known technique for detecting lost connection and re-establishing connection). It

would have been obvious to one of ordinary skill in the art at the time the invention was made to

combine the teachings of Pepe, Gauvin and Banavar because Banavar's teaching of determining

broken connections and reestablishing connections enables Pepe and Gauvin's method to

monitor connections and re-establish the loss connections.

11.   As per claims 2 and 12, Pepe, Gauvin and Banavar taught the invention substantially as

claimed in claims 1 and 11. Banavar further taught that the ascertaining comprises determining

loss of a connection, and wherein the eliminating comprises re-establishing the connection

(col.8, lines 3-8; known technique for detecting lost connection and re-establishing connection).

It would have been obvious to one of ordinary skill in the art at the time the invention was made

to combine the teachings of Pepe, Gauvin and Banavar because Banavar's teaching of

determining broken connections and reestablishing connections enables Pepe and Gauvin's

method to monitor connections and re-establish the loss connections.

12.   As per claims 5 and 15, Pepe, Gauvin and Banavar taught the invention substantially as claimed in claims 1 and 11. Pepe further taught wherein the second protocol is connection oriented (TCP, col.7, lines 16-24, 32-38), and wherein the client interceptor and the server interceptor intercept a plurality of connections between the client application and the client interceptor using the second protocol (col.7, lines 32-38, 66-67, col.8, lines 1-5, 16-25), and between the server interceptor and the server application using the second protocol (col.7, lines 32-38, 66-67, col.8, lines 26-33).

13.   As per claims 6 and 16, Pepe, Gauvin and Banavar taught the invention substantially as claimed in claims 5 and 15. Pepe further taught wherein the plurality of connections using the second protocol are multiplexed onto a single connection of the first protocol (col.8, lines 34-43).

14.   As per claims 7 and 17, Pepe, Gauvin and Banavar taught the invention substantially as claimed in claims 1 and 11. Pepe further taught wherein the first protocol is a wireless communication protocol (col.6, lines 65-67, col.7, lines 32-38, col.8, lines 1-5).

15.   As per claims 8 and 18, Pepe, Gauvin and Banavar taught the invention substantially as claimed in claims 1 and 11. Pepe further taught to comprise the act of opening, by the client interceptor, a connection to the server interceptor using the first protocol following the act of intercepting the second-protocol data communication request (col.8, lines 16-33).

16.   As per claims 10 and 20, Pepe, Gauvin and Banavar taught the invention substantially as

claimed in claims 1 and 11. Pepe further taught that the client application and the client

interceptor reside on a same computing device (col.5, lines 48-57, col.7, lines 17-23).

17.   Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pepe,

Gauvin and Banavar as applied to claims 1 and 11 above, and further in view of Batra, US

6,105,067.

18.   As per claims 3 and 13, Pepe, Gauvin and Banavar taught the invention substantially as

claimed in claims 1 and 11. Gauvin further taught to establish communication when request is

intercepted (col.2, lines 38-42, col.12, lines 57-63) and Banavar further taught to detect loss of a

connection and re-establishing the connection (col.8, lines 3-8; known technique for detecting

lost connection and re-establishing connection). Pepe, Gauvin and Banavar did not specifically

teach wherein the ascertaining comprises detecting that a connection is idle, and wherein the

eliminating comprises dropping the connection and re-establishing the connection. Batra taught

to detect idle condition, drop connection (col.4, lines 10-21, col.11, lines 42-65). It would have

been obvious to one of ordinary skill in the art at the time the invention was made to combine the

teachings of Pepe, Gauvin, Banavar and Batra because Batra's teaching of determining idle

period and dropping idled connections enables Pepe, Gauvin and Banavar's method to monitor

more specifically and compensate more detail on the protocol, both advantageous or

disadvantageous, drop and re-establish idle connections (Batra, col.4, lines 10-21, col.11, lines

42-65).

19.   Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pepe,

Gauvin and Banavar as applied to claims 1 and 11 above, and further in view of van Landegem

et al (hereinafter van Landegem), US 5,265,091.

20.   van Landegem was cited in the previous office action.

21.   As per claims 4 and 14, Pepe, Gauvin and Banavar taught the invention substantially as

claimed in claims 1 and 11. Pepe further taught wherein the ascertaining comprises determining

that transmission capacity is insufficient process the data communication request (col.9, lines 26-

32). Pepe, Gauvin and Banavar did not specifically teach wherein the ascertaining further

comprises determining the transmission capacity to process the data communication request

within a predetermined interval of time, and wherein the eliminating comprises establishing a

parallel connection to increase transmission capacity. van Landegem taught to determine the

transmission capacity with a predetermined interval of time and to establish a parallel connection

to increase transmission capacity (col.12, lines 15-40, 52-63, col.14, lines 54-61). It would have

been obvious to one of ordinary skill in the art at the time the invention was made to combine the

teaching of Pepe, Gauvin, Banavar and van Landegem because van Landegem's teaching of

determining transmission capacity and establishing parallel connection helps Pepe, Gauvin and

Banavar's method to determine bandwidth availability in a periodic basis in a connectionless

environment (e.g., first protocol, col.2, lines 14-19).

22.   Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pepe, Gauvin and

Banavar as applied to claim 18 above, and further in view of O'Connell et al (hereinafter

O'Connell), US 6,661,787.

23.   As per claim 19, Pepe, Gauvin and Banavar taught the invention substantially as claimed

in claim 18. Gauvin further taught to comprise the means for receiving, by the client interceptor,

an identification of the server application (col.9, lines 61-67, col.10, lines 1-19). Pepe, Gauvin

and Banavar did not specifically teach a means for forwarding the identification to an address-

resolution server for first-protocol address resolution. O'Connell taught to use server

identification to look up the network route and destination address using address resolution

protocol (col.1, lines 55-67, col.2, lines 1-6). It would have been obvious to one of ordinary skill

in the art at the time the invention was made to combine the teaching of Pepe, Gauvin, Banavar

and O'Connell because O'Connell's teaching of address resolution using identification to look

up network address enables Pepe, Gauvin and Banavar's system to identify the end station and

the connection to the end station (col.1, lines 55-62).

24.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pepe et al

(hereinafter Pepe), US 5,673,322, in view of Gauvin et al (hereinafter Gauvin), US 5,790,800,

and O'Connell et al (hereinafter O'Connell), US 6,661,787.

25.   O'Connell was cited in the previous office action.

26.   As per claim 9, Pepe taught the invention substantially as claimed including a data

communication method that compensates for disadvantageous characteristics of a first protocol

that is used to communicate data between a client application and a server application, wherein

the client application and the server application employ a second protocol that is mapped onto

the first protocol (col.5, lines 48-61), said method comprising the acts of:

    a. Intercepting, by a local proxy acting on behalf of a server application, a second-

        protocol data communication request from a client application (col.5, lines 48-57,

        col.7, lines 17-23, 32-34, 66-67, col.8, lines 1-5, 16-25);

    b. Mapping, by the local proxy, the second-protocol data communication request

        onto the first protocol (col.5, lines 48-59, col.7, lines 17-31, 51-60, 66-67, col.8,

        lines 1-5, 16-25);

    c. Sending the communication request to a remote proxy using the first protocol

        (col.5, lines 48-59, col.7, lines 17-34, 66-67, col.8, lines 1-8, 16-25);

    d. Compensating a disadvantageous characteristic of the first protocol (col.9, lines 2-

        67, col.10, lines 1-6);

    e. Mapping, by the remote proxy, the communication request back onto the second

        protocol to recreate substantially the second-protocol data communication request

        (col.5, lines 48-61, col.7, lines 34-38, col.8, lines 6-15, 26-33); and

    f. Delivering the second-protocol data communication request to the server

        application (col.5, lines 48-61, col.7, lines 34-38, col.8, lines 6-15, 26-33).

    g. Opening, by the local proxy, a connection to the remote proxy using the first

        protocol following the act of intercepting the second-protocol data

communication request (col.5, lines 48-61, col.7, lines 34-38, 59-65, col.8, lines

6-33).

27.   Pepe further taught that proxies can be of hardware, software or implemented on a

firewall (col.7, lines 1-23). Pepe did not specifically teach that the local proxy is a client

interceptor, the remote proxy is the server interceptor and to receive, by the client interceptor, an

identification of the server application and forward the identification to an address-resolution

server for first-protocol address resolution. Gauvin taught to use interceptors in intercepting the

requests (col.2, lines 38-42, col.9, lines 5-7, col.12, lines 57-63) and receiving, by the client

interceptor, an identification of the server application (col.9, lines 61-67, col.10, lines 1-19). It

would have been obvious to one of ordinary skill in the art at the time the invention was made to

combine the teaching of Pepe and Gauvin because Gauvin's teaching of using interceptors help

to implement the proxies of Pepe's method to intercept requests and establish communications

(Gauvin, col.12, lines 57-63). Pepe and Gauvin did not specifically teach to forward the

identification to an address-resolution server for first-protocol address resolution. O'Connell

taught to use server identification to look up the network route and destination address using

address resolution protocol (col.1, lines 55-67, col.2, lines 1-6). It would have been obvious to

one of ordinary skill in the art at the time the invention was made to combine the teaching of

Pepe, Gauvin and O'Connell because O'Connell's teaching of address resolution using

identification to look up network address enables Pepe and Gauvin's method to identify the end

station and the connection to the end station (col.1, lines 55-62).

Response to Arguments

28.   Applicant's arguments with respect to claims 1-8 and 10-20 have been considered but are

moot in view of the new ground(s) of rejection.

29.   Applicant's arguments filed 5/31/2005 regarding claim 9 have been fully considered but

they are not persuasive.

30.   In the remark, applicant argued (1) van Landegem does not teach or suggest "determining

the transmission capacity is insufficient to process the data communication request within a

predetermined interval of time". (2) Gauvin does not teach "receiving, by the client interceptor,

the identification of the server application." Examiner's argument with respect to O'Connell is

an improper modification of the secondary reference of Gauvin.

31.   Examiner traverse the arguments

These arguments were addressed in the previous office action.

As to point (1), applicant has misinterpreted the van Landegem reference. It is obvious that by

knowing the actual transmission capacity, one can determine whether the transmission capacity

is sufficient or not. Pepe taught to determine if the transmission capacity is insufficient to

process the data communication request (col.9, lines 26-32). van Landegem taught specifically

in column 12, lines 29-40 stating the use of predetermined interval of time in comparison with

the length of the start and end period in determining the transmission capacity. van Landegem

further taught in column 12, lines 14-19 that the measurement (e.g., determination of the

transmission capacity) is done in a periodically basis manner. Thus, van Landegem not only

taught to determine the transmission capacity with a predetermined interval of time, but also

taught that the determination is done periodically (col.12, lines 15-40). It would have been

obvious to one of ordinary skill in the art at the time the invention was made to combine the

teaching of Pepe, Gauvin, Banavar and van Landegem because van Landegem's teaching of

determining transmission capacity and establishing parallel connection helps Pepe, Gauvin and

Banavar's method to determine bandwidth availability in a periodic basis in a connectionless

environment (e.g., first protocol, col.2, lines 14-19). In response to applicant's arguments against

the references individually, one cannot show nonobviousness by attacking references

individually where the rejections are based on combinations of references. See *In re Keller*, 642

F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375

(Fed. Cir. 1986).

As to point (2), applicant has again misinterpreted the cited reference. Gauvin taught in column

10, lines 8-10 stating that "The execution flow for performing the functions of step 810, as well

as other steps 820-850, are intercepted by the interceptor 700 (e.g., client interceptor)..." and

column 10, lines 15-16 that "... port and server identifications, are provided in step 820".

Therefore, the client interceptor is taught to receive the identification of the server application

(col.9, lines 61-67, col.10, lines 1-19). The cited columns in Gauvin clearly taught the claimed

limitation without having the need for the examiner to modify the reference. Hence, the above

statements overcomes the applicant's argument regarding examiner's modification of the Gauvin

reference and combination of O'Connell reference with modification of Gauvin reference. In

response to applicant's arguments against the references individually, one cannot show

nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

32.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

    Adamovits et al, US 6,618,819.

    Gordon et al, US 6,671,729.

33.   Applicant's amendment filed on 11/29/2004 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

    A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

34.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kenny Lin whose telephone number is (571) 272-3968. The

examiner can normally be reached on 8 AM to 5 PM Tue.-Fri. and every other Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ksl
June 13, 2005

JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100